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middle class man in southern India, for instance, an accountant under the Cholas was Rs. 16 $\frac{2}{3}$ per month, that is, \$60 a year.¹³⁰ Payments were either in kind or in money. The Cholas used to pay even handicraftsmen often in land for customary work. Under the Mauryas payment in gold might be commuted for that in kind at fixed rates.¹³¹

We are not concerned here with "index numbers" or with statistics of wages and prices or with the manner in which the tariff, if it was really protective, may have affected the course of industries and commerce. The stray figures for the third and fourth cen-

turies *B. C.* and the eleventh and twelfth centuries *A. D.* may be taken for what they are worth. Only it is necessary to bear in mind that in British India the average per capita income is Rs. 20 or \$6 per annum. On the whole, it may reasonably be concluded that the financial burden of *pax sārva-bhaumica*, howsoever heavy it might be, whether absolutely or relatively, was easily borne by a contented peasantry and working class, a prosperous industrial and commercial aristocracy, and last, but not least, a well-paid civil service and army, especially in view of the fact that under Chandragupta and Asoka (third century *B. C.*) the people of India had the conscious satisfaction of being citizens of the first and greatest power of the world.

¹³⁰ Aiyangar, p. 181.

¹³¹ *Indian Antiquary*, 1909, p. 264. For 5 panas one obtained 165 sers (Madras standard). *Indian Antiquary*, 1905, p. 53.

Have American Wages Permitted an American Standard of Living? *

A Review of the Important Inquiries and Their Findings, 1890–1920

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AT no time before, probably, has there ever been greater popular confusion and obscurity as to what constitutes an American standard of living and what is the relation of wages earned and the standard of living necessary, as at this period. Indeed, the controversy between capital and labor in regard to this question at this time is becoming very grave, and is fraught with the utmost danger. Industrial concerns and railroad companies are daily announcing reductions in wage rates, justifying these on the

ground that prices have come down so much during the past year that there is no excuse for the "high war-time" wages. On the other hand, the employees are, with rare exceptions, vehemently and vigorously opposed to the present methods of arbitrary wage cuts, contending that there has as yet been no substantial decrease in the cost of living which would justify cutting the rates of pay. They furthermore point out that as most of the reductions at this time are made in the rates of the unskilled workers it will reduce these workers again to the prewar level of wages which were found in many instances to have been below the American standard of living. They demand

* The material for this article is reprinted from a chapter in Mr. Epstein's book, *Facing Old Age*, to be published by Alfred A. Knopf, Inc., New York.

a wage compatible with the subsistence standard set by government authorities and competent students as necessary to support a family consisting of the father, mother and three small children, with the absolute necessities of life.

What has been the relation of the wages earned and the minimum standard of subsistence in the past? Doubtless this question has often been asked before. Unfortunately, however, while many local and national investigations have been made of costs of living and wages in the United States, the great majority of these have covered but short periods. Compilations of these studies for a number of years have been few in number. In the article that follows, an effort has been made to present a summary of the results of official and authoritative investigations on standards of living and wages earned covering a period of thirty years—from 1890 to the latter part of 1920. The findings of these investigations and the relation of the costs of living and wages earned is presented here for each year. It is hoped that an analysis of these facts may help to shed some light upon this important and very much mooted question.

Professor John A. Ryan in his book, *A Living Wage*, made an exhaustive and careful study of the Census Reports of 1890 and 1900, as well as of numerous other statistical reports prepared by the federal and various state labor bureaus, regarding wages and the cost of living during the last decade of the nineteenth century and the beginning of the twentieth century. His studies of the cost of living during that decade convinced him that:

The conclusions that seem to be abundantly justified by the facts brought out may, therefore, be stated as follows: first, anything less than \$600 per year is not a Living Wage in any of the cities of the United States; second, this sum is probably

a Living Wage in those cities of the Southern States in which fuel, clothing, food and some other items of expenditures are cheaper than in the North; third, it is possibly a Living Wage in the moderately sized cities of the West, North and East; and fourth, in some of the largest cities of the last-named regions, it is certainly not a Living Wage.¹

In addition to Professor Ryan's estimate, the United States Bureau of Labor in 1901 studied the incomes and expenditures of 25,440 families whose average size was 4.88 persons. This investigation showed that it cost at least \$700 on the average to support each of these families.²

After he had established his standard, Professor Ryan made a further study of wage reports and, taking his estimate as the minimum basis, presented the table of underpaid workers in the different industries on page 171.

The important feature of the table, summarizes Professor Ryan,

Is the percentages, which may be taken as fairly representative of average wage conditions in manufacturing and railway industries. And the general level of remuneration in these two fields is undoubtedly quite as high as the average of the other urban occupations. It is to be noted, moreover, that these percentages reflect the conditions of 1890 and 1900-1903, when wages were about as high as they are at present (1905) fully as high as the average of the last fifteen years, and higher than that of the last twenty-five years.³

During the same period, according to Streightoff,⁴ the yearly remuneration of the garment makers in 1894 in New York ranged from \$249.94 for knee-pants-makers to \$402 for cap-makers; and the male machine operators and

¹ John A. Ryan, *A Living Wage*, p. 150.

² Maurice Parmelee, *Poverty and Social Progress*, p. 87.

³ *Ibid.*, p. 161.

⁴ *The Standard of Living*, by F. H. Streightoff pp. 60-63.

<i>Employees and Years Represented</i>	<i>Number of Adult Males Represented</i>	<i>Per Cent of Adult Males Under-paid</i>
In 50 manufacturing industries in 1890	757,865	51
In iron and steel, 1891	17,650	81
In railway occupations, 1889	206,604	85
In 34 manufacturing industries, 1890	93,544	66
In 34 manufacturing industries, 1900	142,638	64
In railway occupations, 1900 and 1903	2,125,717	72
In manufacturing, Mass., 1890 and 1891	367,311	59
In " Wis., 1891	70,326	61
In " Minn., 1899 and 1900	99,872	53
In " Mass., 1899 and 1900	511,727	64
In " Wis., 1899, 1900, 1901	217,522	75
In " N. J., 1899, 1900, 1901	387,903	60
In " Ill., 1900 and 1901	135,890	58*

handworkers of Chicago earned, on the average, \$430 and \$325 respectively, the average recompense of all male workers in the cloak-making trades being \$330.42. In 1900, in North Dakota, of the 2,168 men investigated, the wages averaged \$535; Minnesota recorded 66,889 workmen at an average of \$492; and Wisconsin 120,131, at \$449. In the same year the average earnings of male cotton operators was \$405.69 in Massachusetts, \$243.34 in Georgia, \$216.39 in North Carolina, and \$207.58 in South Carolina.

In analyzing the labor reports of the states of New Jersey and Massachusetts for 1901, Streightoff found that 64.75 per cent of all adult male factory employes in the manufacturing industries of the former state and 62.86 per cent of the male employes in similar industries in the latter state earned less than \$12 per week, or approximately \$600 per year.⁶

A study of family incomes made by the Massachusetts Bureau of Statistics of Labor in 1902 revealed that it cost on the average about \$800 to support each of these families, whose average size was 4.8 persons.⁷ In the same year also the New York Bureau of Labor

Statistics estimated that an income of \$10 a week, or \$520 a year was inadequate for a family living in a city.⁸

From the 1902 reports of the labor bureaus, Streightoff⁹ found that 62.51 per cent of the male employes in the manufacturing industries in New Jersey, and 61.35 per cent of male employes in Massachusetts earned less than \$12 a week or approximately \$600 per year. The Indiana returns for the same year showed the average earnings of pumpmen as \$2.20 per day, while that of trappers who worked only 215 days in the year was \$1.13 per day. Professor Ryan also points out that the Interstate Commerce Commission's reports for the year 1903 revealed that 72 per cent of the more than two million railroad employes investigated earned less than \$600 per year.

In 1904 Robert Hunter stated that:

It was shown by the Massachusetts Bureau of Statistics that it takes \$754 a year for a family of five persons to live on. John Mitchell has said that a minimum wage of \$600 a year is necessary in the anthracite district for a worker with a family of ordinary size. The New York Bureau of Labor considers that \$10 a week or \$520 a year is inadequate for city work-

⁶ *A Living Wage*, p. 160.

⁶ *The Standard of Living*, Appendices A and B.

⁷ *Poverty and Social Progress*, p. 87.

⁸ *Ibid.*, p. 88.

⁹ *The Standard of Living*, Appendices A and B, p. 61.

men. A prominent official of one of the largest charities in New York City thinks that \$2 a day, or about \$624 a year, is necessary for a family of five in that city.¹⁰

From these estimates Hunter expressed the opinion that \$624 was not too much for a family in New York City. "When one gets below these figures," he declared, "every dollar cut off may mean depriving a family of a necessity of life, in times of health even, and unquestionably in times of sickness." But in order to be thoroughly conservative he estimated more or less arbitrarily, \$460 a year as essential to defray the expenses of an average family,—a father, a mother, and three children,—in the cities and industrial communities of the New England States, of New York, Pennsylvania, Indiana, Ohio and Illinois. "This estimate," he concluded, "would approach very nearly a fair standard for the poverty line; that is to say, if any working-class family should be unable to obtain this wage, they would in all likelihood be unable to obtain the necessities for maintaining physical efficiency."¹¹

One of the most extensive investigations of wages in the United States was made during 1903–1904 by the United States Census Bureau. This investigation covered 3,297,811 wage-earners of whom 2,619,025 or 79.4 per cent were men; 588,599 or 17.9 per cent were women and 90,167 or 2.7 per cent were children. The Census Bureau gives the results below.

The table below indicates that during the period studied, over one-quarter of the male workers were earning less than \$8 a week or less than \$420 a year; 46 per cent earned less than \$10 a week, while over 70 per cent or nearly three-fourths were earning less than \$15 a week, or \$780 a year. Ninety-eight per cent of all wage-earners earned less than \$25 a week. The average for all classes is \$10.06, or approximately \$520 per year: the average for men being \$11.16, for women \$6.17, and for children \$3.46.

In the same year Streightoff made another estimate of the distribution of income in the United States derived primarily from labor.¹²

EARNINGS OF MALES, SIXTEEN YEARS AND OVER, ENGAGED IN MANUFACTURE IN THE UNITED STATES IN 1904¹³

<i>Weekly Wage</i>	<i>Number</i>	<i>Percentages</i>	
		<i>Actual</i>	<i>Cumulative</i>
Under \$3	56,346	2.2	2.2
\$3 but under \$4	57,597	2.2	4.4
\$4 " " \$5	87,739	3.4	7.8
\$5 " " \$6	103,429	4.0	11.8
\$6 " " \$7	161,940	6.2	18.0
\$7 " " \$8	196,981	7.5	25.5
\$8 " " \$9	207,954	7.9	33.4
\$9 " " \$10	343,812	13.1	46.5
\$10 " " \$12	409,483	15.6	62.1
\$12 " " \$15	450,568	17.2	70.3
\$15 " " \$20	385,647	14.7	94.0
\$20 " " \$25	106,046	4.0	98.0
\$25 and over	51,511	2.0	100.0

¹⁰ Robert Hunter, *Poverty*, pp. 51–53.

¹¹ *Poverty*, pp. 51–53.

¹² *Poverty and Social Progress*, p. 68.

¹³ *Report of Manufactures*, Census Bureau Part IV, pp. 645–8, 1905.

Approximate number of males, 16 years old or over, employed in 1904	19,658,000
Number earning under \$600 yearly, or under \$12 weekly	12,738,000
Number earning \$600, but under \$1,000 yearly, \$12 but under \$20 weekly . . .	5,315,000
Number earning \$1,000 or more yearly, or \$20 or more weekly	1,605,000

On the basis of the above data, Streightoff concluded that in 1904 over 60 per cent of the males, at least 16 years of age, employed in manufacturing, mining, trade, transportation, and a few other occupations were earning less than \$626 per annum, or less than \$12 per week on an average. Summarizing the official reports which he studied, Streightoff also shows¹⁴ that 46.5 per cent of the Illinois miners earned less than \$500 per year. He gives the percentages of adult males, exclusive of officers, clerks and salaried persons, engaged in manufacturing in the same year, whose earnings were less than \$12 per week, as 62.35 in Massachusetts; 60.8 in New Jersey; 58.05 in Missouri; 31.15 in Illinois, and 67.95 in Wisconsin.

From an intensive study of the budgets of 200 wage-earning families in New York City during the years 1903 and 1905, Mrs. More concluded as a result of her investigations that "a fair living wage for a workingman's family in New York City should be at least \$728 a year or a steady income of \$14 a week."¹⁵

According to the census of manufactures, the 4,244,538 men engaged in manufacturing in 1905 received an average income of \$533.95. Of 13,796 railway men in North Carolina, in the same year, 11,295 were found to have averaged less than \$1.62 per day or \$500 per year. In thirty Maine clothing factories in 1905, 234 men investigated received wages averaging \$10.82 per week, while 1,078 women earned a mean weekly wage of \$6.78. Of the

adult males engaged in manufacturing industries during the same year, 58.5 per cent in New Jersey and 57.09 in Massachusetts earned less than \$12 per week.¹⁶

In concluding his estimates of what constitutes a living wage Professor Ryan states:

According to careful studies and estimates made by several groups of investigators in 1906, the minimum cost of decent living for a family of moderate size was: In New York, \$950; in Chicago, \$900; in Baltimore, \$750; while the average for these and several other large cities was \$938.

Professor Ryan therefore declares:

The conclusion seems justified that at least sixty per cent of the adult male workers in the cities of the United States are today (1905) receiving less than \$600 annually.¹⁷

During 1906, the percentages of adult male employes engaged in manufacturing industries who earned less than \$12 per week were as follows:¹⁸ In New Jersey, 57.49; in Massachusetts, 55.12, while in San Francisco, where wages have always been higher, of all employes, including women and children, in the same year 63.40 per cent earned less than \$12 per week. In Indiana during the same year the earnings of railway workers were found as follows: 1,870 conductors earned an average of \$1,084.93; 2,287 engineers averaged \$1,284.69; 4,408 station men averaged \$508.37, and 88,967 track men earned \$378.93 each on an average that year.¹⁹ The 30,742 miners in-

¹⁶ *The Standard of Living*, pp. 59-60-62, and Appendices A and B.

¹⁷ *A Living Wage*, pp. 150 and 162.

¹⁸ *The Standard of Living*, p. 64.

¹⁹ *The Standard of Living*, p. 60.

¹⁴ *The Standard of Living*, pp. 60-64.

¹⁵ L. B. More, *Wage Earner's Budgets*, pp. 269-70.

vestigated in Illinois in 1906 worked only 189.6 days during that year and earned on an average of \$480.82.²⁰ Of 9,679 men at work in cotton factories in New Hampshire during the same year the average wage amounted to \$417.31.

Little improvement occurred the following year. In 1907, of the adult male factory employes (exclusive of officers, clerks and salaried men) engaged in manufacturing industries in New Jersey, 54.5 per cent of the total earned less than \$12 per week, while of those engaged in the same industries in Massachusetts, 51.64 per cent earned a similar wage.²¹

Quite a large number of investigations regarding both minimum standards required and wages actually received were carried on during 1908. The United States Bureau of Labor estimated that in Fall River, Massachusetts, in 1908, the minimum standard of living for an average family could not be less than \$484.41 per year. This standard the bureau defined as follows:

If the family live upon this sum without suffering, wisdom to properly apportion the income is necessary. There can be no amusements or recreations that involve any expense. No tobacco can be used. No newspapers can be purchased. The children cannot go to school because there will be no money to buy their books. Household articles that are worn out or destroyed can not be replaced. The above sum provides for neither birth nor death nor any illness that demands a doctor's attention or calls for medicine. Even though all of these things are eliminated, if the family is not to suffer, the mother must be a woman of rare ability. She must know how to make her own and her children's clothing; she must be physically able to do all the household work, including the washing. And she must know enough to purchase with her allowance food that has the proper nutritive value.²²

²⁰ *The Standard Living*, p. 61.

²¹ *Ibid.*, Appendices A and B.

²² *Poverty and Social Progress*, p. 89.

The bureau estimated that a fairer standard of living for Portuguese, Polish and Italian families required at least \$690.95, and \$731.99 for English, Irish and Canadian-French families. This higher standard, the bureau said:

Will enable him (the father) to furnish them (his family) good nourishing food and sufficient clothing. He can send his children to school. Unless a prolonged or serious illness befall the family, he can pay for medical attention. If a death should occur, insurance will meet the expense. He can provide some simple recreation for his family, the cost not to be over \$15.60 for the year. If this cotton-mill father is given employment 300 days out of the year, he must earn \$2 per day to maintain this standard. As the children grow older and the family increases in size, the cost of living will naturally increase. The father must either earn more himself or be assisted by his younger children.

But even this standard is by no means an ideal one. It does not allow savings to meet the contingency of any unusual event, such as lack of employment or accident to the father. It makes no provision for old age. It provides for culture wants only in the most limited manner, viz., one paper costing \$1 a year. It provides elementary schooling for the children up to their twelfth year only.²³

The Massachusetts Bureau of Statistics' investigations during the same year showed that the average wage of all cotton-mill employes in Fall River was only \$447.40, quite below even the minimum standard set for the same city.²⁴ The average remuneration of all the 176,377 anthracite miners in Pennsylvania in that year was \$496.13, just above the lowest standard; that of bituminous miners averaged only \$447; while the average for all the employes amounted only to \$458.29,²⁵ considerably less than the minimum required. Of the male employes engaged in

²³ *Ibid.*, p. 89.

²⁴ *Ibid.*, p. 60.

²⁵ *The Standard of Living*, p. 61.

factories, 56.7 per cent in New Jersey and 51.70 in Massachusetts earned less than \$12 per week.²⁶

In 1908 the railroads of the United States employed 61,215 firemen at an average per diem compensation of \$2.64; 57,668 enginemen at \$4.45; 43,322 conductors at \$3.81; 114,580 other trainmen at \$2.60; 41,419 section foremen at \$1.95; 299,448 other trackmen at \$1.45; and 46,221 switch tenders and crossing watchmen at \$1.78.²⁷

In the same year, the New Jersey roads employed some 42,514 men at an average annual wage of \$657.22, considerably below the fair standard set for Fall River.

On the basis of numerous statistical reports of wages in Massachusetts during 1908 furnished by the different state bureaus, Nearing concluded that:

It may be fairly stated that no more than one adult male wage-earner in every twenty employed in the industries of Massachusetts receives, in annual earnings, for a normally prosperous year, more than \$1,000. On the other hand, more than one-third of all the adult males are paid wages under \$500; more than one-half receive wages under \$600; while nearly three-quarters receive less than \$700 annually.²⁸

In cotton goods, the leading Massachusetts industry, Nearing found that wages were very much lower than in the state at large, nearly three-fifths of all the adult male employes having received less than \$459 in 1908.

From budget studies made by Dr. R. C. Chapin in 1909, the New York State Conference of Charities and Corrections concluded that:

It is fairly conservative to estimate that \$825 is sufficient for the average family of 5 individuals, comprising the father, mother and three children under 14 years of age to

maintain a fairly proper standard of living in the Borough of Manhattan.²⁹

In 1909, Nearing made a study of wages in New Jersey, similar to that which he had made the year before of wages in Massachusetts, and found that:

For the state of New Jersey at large, and for the five industries employing the largest numbers of persons, it appears that after deducting the known unemployment, between one-third and one-half of the adult males received less than \$500 in 1909; that from one-half to three-fifths received less than \$600; that about three-quarters were paid less than \$750; nine-tenths received less than \$950; while from one-twentieth to one-tenth received \$950 or over. The wages of adult females were very much lower. From three-quarters to four-fifths received less than \$400; nine-tenths were paid less than \$500, while a vanishing small percentage received an annual wage of more than \$750.³⁰

A study of wages in Kansas and of its leading industries in 1909, by the same writer, showed that while the industrial conditions in Kansas differ from those in Massachusetts and New Jersey, about one-third of the male employes in the car and shop construction, and in the slaughtering industries, received less than \$500, one-half less than \$600 and three-fourths received less than \$750 per year. The proportion of females earning less than \$520 was exactly twice that of males.³¹

Nearing's conclusions are fully borne out by official investigators. The 1910 census reports give the average number of wage-earners engaged in manufacturing in 1909 as 6,631,931. The total amount spent in wages in those industries during that year was \$3,434,734,000. When this total is divided by

²⁶ *The Standard Living.*, Appendices A and B.

²⁷ *Ibid.*, p. 61.

²⁸ Scott Nearing, *Wages in the United States*, 57-58.

²⁹ R. C. Chapin, *The Standard of Living Among Workingmen's Families, in New York City*, p. 281.

³⁰ *Wages in the United States*, p. 72.

³¹ *Wages in the United States*, pp. 85-87.

the average number of wage-earners the quotient is \$517.91, which was the average wage during that year and which is below \$10 per week.

The United States Department of Agriculture also gave the farm wages during the year 1909. Farm labor by the day in the lowest type of work averaged \$1.71 in 1909, outdoor farm labor with board averaged \$1.43 a day, while the average monthly wage for outdoor farm labor quoted for the year without board was \$25.46 or \$305.52 per year.³²

In 1910, after a most exhaustive study of wealth possessions, Dr. Willford I. King estimated that 95 per cent of the families of the United States had incomes of less than \$2,000 a year; 82 per cent had incomes of less than \$1,200; while 69 per cent were living on less than \$1,000.³³

An elaborate Congressional investigation of the iron and steel industry in the United States, covering 172,706 employes, found the wage rates per year as per May, 1910 as follows: 8 per cent earned under \$500, 60 per cent under \$750, 85 per cent under \$1,000, and 97 per cent under \$1,500. The separate rates of the employes of the Bethlehem Steel Company during January of that year were found to be less than \$500 per year in one-third of the cases; less than \$625 in two-thirds, while only 8 per cent averaged \$1,000 and over.³⁴

The census reports also show that in 1910 the average number of wage-earners engaged in mining industries was 1,093,286. The total wages earned by them was \$606,135,238. The average wage secured when the total sum earned is divided by the total num-

ber of workers is \$554.42, or \$10.66 per week.

From the exhaustive studies made by Streightoff of incomes and actual expenditures in different parts of the country, he presented for 1911 the following minimum of expenditures necessary for a family consisting of a husband, a wife, a boy between 11 and 14, a child between 7 and 10, and a baby under three. These expenditures obviously include only a minimum of the most essential necessities:

Food.....	\$297
Rent.....	100
Clothing.....	120
Fuel.....	40
Church and other organizations....	20
Medical attention.....	12
Amusement.....	20
Miscellaneous.....	40
	<hr/>
	\$649

Mr. Streightoff concludes that:

The above would show that it is conservative to set \$650 as the extreme low limit of a Living Wage in cities of the North, East, and West. Probably \$600 is high enough for the cities of the South. At this wage there can be no saving and a minimum of pleasure. Yet there are in the United States at least five million industrial workmen who are earning \$600 or less a year.

Streightoff then calls attention to the fact that:

It will be remembered that 1,116,199 men engaged in manufacturing alone are earning no more than \$400 per annum, and 2,009,914 are receiving no more than \$500. If all industrial occupations are considered, probably four million men are not enjoying annual incomes of \$600.³⁵

During the period of 1911-12, a number of wage studies were brought out by the United States Department of Labor. In the cigar industry studied in that period, of 3,615 males investi-

³² United States Dept. of Agriculture, Bureau of Statistics, *Bulletin 99*, 1912.

³³ W. I. King, *Wealth and Income of the People of the United States*, pp. 214-230.

³⁴ Scott Nearing, *Income*, p. 90.

³⁵ *The Standard of Living*, p. 162.

gated, three-tenths received a wage of less than \$750, while half of these studied earned wages under \$1,000 per year. Four-fifths of the 7,551 females investigated received a wage of less than \$750 per year.³⁶

The Tariff Board made extensive investigations during the same period of wage rates in the cotton industry. These studies disclosed that in the North, 5 per cent and in the South, 22 per cent of the males 16 years of age and over in the cotton industry received a wage rate of less than \$250 per year. Half of the employes in the North and more than four-fifths of those employed in the South were paid at the rate of less than \$500 per year. The figures for women range much lower than those for men.³⁷

For the dyeing and finishing woollens and worsted industry the Tariff Board reports that four-fifths of the male dyers earned less than \$500 and nine-tenths less than \$700 per year.³⁸

The wages of employes engaged in woollen, worsted and cotton mills of Lawrence, Massachusetts, in 1911 were similar to those found by the Tariff Board. In that city half of the men studied received wages below \$500 while seven-eighths earned less than \$600. In the case of female employes

more than four-fifths earned less than \$500, while 94 per cent received less than \$600.³⁹

The United States Labor Department in its investigations in the textile industry brought out similar results. In the cotton industry three-fifths of the males and four-fifths of the females received wages of less than \$500 per year, while 99 per cent of the females and 97 per cent of the males earned less than \$750 per year.⁴⁰

In 1911-12 the Oklahoma Department of Labor reported that of 668 male wage-earners in the telephone and telegraph industry 27 per cent received less than \$500; 78 per cent less than \$750 and 95 per cent less than \$1,000 per year. Of the 1,143 female workers employed in the same industry 17 per cent were earning under \$250, 96 per cent under \$500 and 99 per cent under \$750.⁴¹

From reports compiled by the different State Bureaus of Labor, Nearing found the percentages of wages during the years 1911-12 as recorded below.

In 1913, Nearing, in his book *Financing the Wage Earner's Family* (p. 97), concluded from his examination of numerous reports and wage studies that:

State	Year	Percent Earned	Percent Earned
		Less than \$500	Less than \$750
California.....	1911	7.7	30
Iowa.....	1912-13	12.	61
Massachusetts.....	1912	28.	67
New Jersey.....	1911	36.	71
Oklahoma.....	1911	17.	68 ⁴²

³⁶ *Income*, p. 95.

³⁷ *Report of the Tariff Board on Cotton Manufactures*, 62nd Congress, 2nd Session, House Document 643, Government Printing Office, 1912, Vol. II, 637-651.

³⁸ *Income*, pp. 91-92.

³⁹ *Report on The Strike of Textile Workers in Lawrence, Mass.*, Charles P. Neil, Senate Document 870, 62nd Session, 1912, p. 74.

⁴⁰ *Income*, p. 93.

⁴¹ *Annual Report of the Department of Labor, Oklahoma*, 1911-12, p. 232.

⁴² *Income*, p. 100.

The available data indicate that a man, wife, and three children under fourteen can not maintain a fair standard of living in the industrial towns of Eastern United States on an amount less than \$700 a year in the Southern, and \$750 a year in the Northern states. In the large cities where rents are higher, this amount must be increased by at least \$100.

A joint investigation carried on during that year by the Consumers' League of Eastern Pennsylvania and the Department of Labor and Industry of that state, showed that the wages of women in Philadelphia department stores were as follows: 16.5 per cent received less than \$5 per week, 63.8 per cent more earned between \$5 and \$10 and only 3.2 per cent received \$15 or over per week.

The year following, Professor J. H. Hollander of Johns Hopkins University, estimated:

That in order to maintain a decent standard of living in the United States for an average family of five, an annual income of \$600 to \$700 is insufficient; that \$700 to \$800 requires exceptional management and escape from extraordinary disbursements consequent upon illness or death; and that \$825 permits the maintenance of a fairly proper standard.⁴³

An even higher estimate during the same year (1914) was set by the Bureau of Personal Service of the Board of Estimate and Apportionment of New York City, which declared \$845 as the least minimum of subsistence for families of unskilled laborers in that city. The New York Factory Investigating Commission declared that \$876 was the lowest minimum wage possible for the year 1914.

The actual earnings during this period were found by the Pennsylvania Department of Labor and Industry in a study of over 20,000 industrial es-

tablishments to have averaged \$720 a year or \$14.40 a week for all males—quite below the minimum standard set. The average annual wage for all females was \$335 or slightly over \$6 a week.

The total amount paid in wages in the states of Massachusetts and Pennsylvania in the year 1914 amounted to \$869,262,517. The number of employes in these two states was 1,531,176 and the average wage per worker amounted to \$568 per year.⁴⁴ The New York State Industrial Commission, which in that year began to compile figures of nearly 600,000 factory and office workers, found that the average weekly wage for the last six months of 1914 amounted to \$12.48, which would give an annual wage of \$648.96 if employed fifty-two weeks in the year.

In 1915 Lauck and Sydenstricker after a comprehensive study of wages and costs of living stated that four-fifths of the heads of families obtained less than \$800 per year, while two-thirds of the female wage-earners were paid less than \$400 per year. According to a statement of the Chamber of Commerce of Akron, Ohio, the 30,511 workers engaged in the rubber industry in that city received an average annual wage of \$628 during the year of 1915.⁴⁵ In the same year the Pennsylvania Department of Internal Affairs, which keeps records of the total payroll amounts and the number of workers employed in that state, found that the average weekly wage per wage-earner (exclusive of salaried and office workers) amounted to \$581.68. The New York Industrial Commission gave the average weekly wage received in that state during the year 1915 as \$12.85, or \$668.20 per year.

The weekly wages received during

⁴³ J. H. Hollander, *The Abolition of Poverty*, p. 9.

⁴⁴ David Friday, *Profits, Wages and Prices*, 1920, p. 102.

⁴⁵ *Ibid.*, p. 105.

the year 1915 throughout the United States in the various industries have been compiled by the Bureau of Applied Economics from the published surveys of the United States Bureau of Labor Statistics. These were found as follows in the different industries⁴⁶:

<i>Industry</i>	<i>Per Capita earnings per week—1915</i>
Boots and Shoes	\$12.12
Cotton finishing	10.54
Cotton manufacturing	8.31
Hosiery and underwear	7.75
Iron and steel	11.76
Men's ready-made clothing	11.92
Silk manufacturing	8.99
Woolen manufacturing	9.70
Car building and repairing	13.20
Cigar manufacturing	9.33
Automobile manufacturing	17.23
Leather manufacturing	11.76
Paper making	13.20

An analysis of the standard of living in the District of Columbia by Professor Ogburn, for the Bureau of Labor Statistics in 1916, led him to conclude that:

An average family of man, wife and three children, of ages 4, 6 and 8 years, in the District of Columbia in 1916 was in debt if the annual income was less than \$1,155.⁴⁷

During 1915-16, the average daily wage for males in many Pennsylvania establishments reported by the Department of Labor and Industry as working on war contracts was found to be only slightly higher in 1916 than in 1914, \$2.76 in the latter year as against \$2.40 in 1914. For females the rise reported was from \$1.11 to \$1.30. The average daily wage of males engaged in public service industries, such as street and steam railways, etc., was \$2.55.⁴⁸ The

average wage received by all wage-earners in Pennsylvania as given by the Department of Internal Affairs was \$737.96 in the year 1916. Salaried and office workers were not included in this tabulation. In the rubber industry of Akron, Ohio, the average annual wage according to the Chamber of Commerce of that city amounted to \$759 in 1916. The wages for that year as found by the New York State Industrial Commission were very similar. The average weekly wage was \$14.43, or, if worked for fifty-two weeks in the year, \$750.36 per year.

The year 1914 may be considered a landmark for both wages and costs of living. Since then money wages have increased in all industries. Even greater, however, has been the rise in the cost of living. Standards of living in terms of money wages need therefore considerable adjustment and a revaluation in purchasing power. According to the Pennsylvania Health Insurance Commission, the standard "minimum of subsistence" budget was estimated in 1914 as \$845 by the Bureau of Personal Service of the Board of Estimate and Apportionment of New York City for unskilled laborer's families; \$875 was the estimate made by the New York Factory Investigation Commission in 1914, and the \$900 estimate by Dr. Chapin for a family of five in 1907 became in June, 1918, \$1,320, \$1,360 and \$1,390 respectively. Similar estimates for 1918 were made by the Commission of the Interchurch World Movement in its Report on the Steel Strike.

The Philadelphia Bureau of Municipal Research stated in December, 1917, that the necessary minimum cost of healthful living for a family of two adults and three children was \$1,200 a year. But in the autumn of 1918 it found \$1,636.79 as necessary for a similar standard of living.

⁴⁶ *Wages in Various Industries*, 1919, p. 60, Bureau of Applied Economics, Washington.

⁴⁷ *Quarterly Publication of the American Statistical Association*, June, 1919, p. 16.

⁴⁸ *Pennsylvania Health Insurance Commission Report*, p. 91.

In November, 1918, the United States Bureau of Labor Statistics estimated that the minimum necessary for subsistence for an average family in a large eastern city was about \$1,500. In the same year, the National War Labor Board drew up a "minimum comfort" budget which amounted to \$1,760 per year for a family of five.⁴⁹

It is interesting to note that the above estimates regarding the minimum budget necessary for subsistence, although showing some variation as would be expected, do not show considerable differences. However, in 1918 the United States Bureau of Labor Statistics made an investigation of the budgets of working families in a number of cities. The average actual expenditures of these families per year in the different cities investigated follows below.

In summarizing the data, the bureau found that of 12,096 white families

investigated in 92 industrial centers scattered throughout the country comprising 4.9 average persons, the average yearly expenses per family was \$1,434.36 in 1918.⁵⁰

In the 1918 investigations of the Pennsylvania Commission on Health Insurance the following data is given:

In the Philadelphia Survey which covered 1,850 families in seven districts in Philadelphia the average family income was but \$21.60 a week, and almost a third of these families contained over five persons—the normal standard.

In the Visiting Nurse Study, 80.6 per cent of the 438 families had incomes of less than \$30.00 a week. In the Sickness and Dependency Study 94.3 per cent of the families had incomes of less than this amount.

Wages for women, proverbially lower than those for men, proved in the Working Women's study to be in 93.1 per cent of the cases under \$25.00 a week; in 92 per cent of the cases, under \$20.00.

<i>City</i>	<i>Number of Families Investigated</i>	<i>Average Persons in Family</i>	<i>Total Average Yearly Expense per Family</i>
Baltimore (White).....	195	4.8	\$1,260.96
Boston.....	407	5.3	1,438.13
Bridgeport, Conn.....	143	4.6	1,540.24
Buffalo.....	256	4.6	1,460.00
Chambersburg, Pa.....	77	4.9	1,241.90
Dover, N. J.....	74	5.3	1,608.92
Fall River, Mass.....	158	5.4	1,320.84
Johnstown, N. Y.....	78	4.5	1,308.51
Lawrence, Mass.....	109	5.3	1,504.67
Manchester, N. H.....	112	5.2	1,370.83
Newark.....	147	4.7	1,445.41
New York.....	518	4.9	1,525.66
Philadelphia and Camden, N. J. .	301	4.9	1,469.40
Pittsburgh, Pa. (white).....	254	5.1	1,412.10
Portland, Me.....	97	4.9	1,412.84
Providence, R. I.....	158	5.3	1,303.18
Rutland, Vt.....	80	5.1	1,264.29
Scranton.....	151	5.2	1,344.99
Syracuse, N. Y.....	158	4.9	1,407.03
Trenton, N. J.....	100	4.4	1,418.50
Westfield, Mass.....	74	5.2	1,494.84
Wilmington, Del.....	98	4.6	1,640.50

⁴⁹ *Pennsylvania Health Insurance Commission Report*, p. 94.

⁵⁰ *Labor Review*, August, 1910, p. 118.

In the Pittsburgh Factory Investigation, made in August–November, 1918, covering the work places of over 9,000 women, it was found that in 70 per cent of the operations the wages were between \$5.00 and \$15.00 per week. In only two processes were the weekly wages over \$25.00.

In a study made by the Consumers' League in New York in 1916–17 among 417 women working in steam laundries, it was found that 78.3 per cent earned less than \$10.00 a week, and almost half earned less than \$8.00.

The Kensington Survey, which covered the most representative industrial group, showed that more than half—56.6 per cent of the 608 families—had incomes under \$30.00 a week. Forty-two per cent were living on less than \$25.00 a week.⁵¹

From July 1, 1914, to April 1, 1918, the wholesale prices of 46 essential commodities given in Bradstreet's Trade Journal showed a rise of 115 per cent. According to the Bureau of Labor Statistics, its study of the increase in the cost of living in shipbuilding centers in 1918 showed that the cost of living for white families had risen 67.17 per cent in August, 1918, over the cost in December, 1914, in Philadelphia; in New York it was 62.07 per cent in December, 1918, over December, 1914.

While the cost of living and prices have thus increased from 60 to 115 per cent, a study of the rise in wages made by H. S. Hanna and W. J. Lauck, led them to conclude⁵²:

That the rise in wages between 1914–15 and December, 1917, or January, 1918, was only 18 per cent for anthracite miners; 26 per cent for machinists in the Philadelphia Navy Yard; 30 per cent for bituminous miners working by hand, and 34, 36 and 37 per cent respectively for shipbuilders, and pipe fitters in the Philadelphia Navy Yard. The rise in the building trades was 12 to 20 per cent. The wages in some industries

had actually decreased, while some remained stationary.

During 1918 in a study of four blocks in Manhattan, wage figures for 377 families were obtained. The incomes of these families in 40 per cent of the cases showed increases between 1917 and January, 1918. In another 40 per cent no increase had come and in 20 per cent an actual decrease had been suffered. There were 574 wage-earners in these families; the wages of 31 per cent of these had increased; 57 per cent had had no increase and 12 per cent had had their wages decreased.⁵³

The Thirty-Third Annual Report of Massachusetts on Statistics of Manufacture states that during the year 1918 the total disbursements in wages paid to labor amounted to \$679,401,273. When compared with the year 1913 the increase in the total wages disbursed amounted to 93.4 per cent. However, the average yearly earnings for all wage-earners without distinction as to the age, sex or skill which in 1917 were \$758.23 per capita, rose only to \$944.65 per capita in 1918. Compared with 1913, when the per capita wage in manufacturing industries was \$569.43, the increase amounts to 65.9 per cent.⁵⁴ During the year 1918, the average wage in Pennsylvania was \$1,213.54. In the rubber industries in Akron, Ohio, it was \$1,173 and in New York State \$1,058.20—quite far below the actual family expenditures during that year as found by the United States Bureau of Labor Statistics in the different cities.

The administrative committee of the National Catholic War Council in its social reconstruction program in 1919 reached the conclusion that the average rate of pay has not increased as fast as

⁵³ *Pennsylvania Health Insurance Commission Report*, pp. 91–92.

⁵⁴ *Thirty-Third Annual Report Statistics of Manufactures*, 1920, p. 11.

⁵¹ *Health Insurance Report*, pp. 91–92.

⁵² *Wages and the War*, p. 6.

the cost of living. That this conclusion is fully justified and that a considerable number of wage-earners, both men and women, have not been receiving what is generally considered a living wage, even during the time when money wages were at their highest peak, is clearly indicated by the following recent investigations, which throw some additional light upon the continuous chase and struggle between increased prices and increased earning power.

In 1919, the National Industrial Conference Board, an organization composed of employers of labor, in an investigation of the cost of maintaining a minimum standard of living for a representative wage-earner's family of five, reached the conclusion that in Lawrence, Massachusetts, in order to maintain the lowest standard, \$1,385.79 was required, or an average weekly income of \$26.65 the year round. A more liberal standard which would make no provision for savings except such as were secured through insurance was found to require a yearly expenditure of \$1,658.04, or a steady income of \$31.88 per week.⁵⁵

In August, 1919, the United States Bureau of Labor Statistics, in a study of budgets of government employes' families in Washington, D. C., set the

standard necessary for the maintenance of a family of five in that city at \$2,262.47.

The extent to which wages have increased during the same period is significant. The National Industrial Conference Board has recently published a report analyzing the wage changes in several important industries from 1914 to 1919. The average weekly earnings of male employes in the specified industries from 1914 to 1919 are given below.⁵⁶

The figures in several instances show actual decreases between September, 1918 and March, 1919, and not a single group earned the minimum wage necessary for the support of a family with the most necessary comforts, as conservatively estimated by the employers' organization itself.

Early in 1919 the United States Bureau of Labor Statistics conducted extensive wage studies in a number of industries throughout the country. Some of its findings are presented on page 183.⁵⁷

It is of interest to note that the figures here show that a living wage was obtained in only one industry, the women's clothing industry, which is now thoroughly organized, and which only a few years ago was one of the most underpaid industries.

Industry	Sept. 1914	Sept. 1915	Sept. 1916	Sept. 1917	Sept. 1918	March 1919
Boots and shoes.	\$14.70	\$15.33	\$16.60	\$19.36	\$24.04	\$25.90
Chemical manufacturing.	12.85	13.26	16.10	20.50	26.80	26.20
Cotton "	10.00	10.05	11.85	14.22	20.60	17.10
Metal "	13.18	14.90	17.22	20.09	26.80	24.75
Paper "	12.75	12.75	15.03	19.03	22.40	22.40
Rubber "	14.00	14.95	18.60	22.80	22.60	29.35
Silk "	11.77	12.66	14.10	15.50	21.54	22.69
Wool "	11.52	11.05	13.51	16.97	23.21	18.61

⁵⁵ *The Cost of Living Among Wage-Earners*, Lawrence, Massachusetts, 1919; National Industrial Conference Board, Boston.

⁵⁶ *War Time Changes in Wages*, Sept., 1914, March, 1919, National Industrial Conference Board, 1919.

⁵⁷ *Labor Reviews*, April, 1920, pp. 100-104; March, 1920, pp. 83-86; Feb., 1920, pp. 106-113; May, 1920, pp. 92-107; and June, 1920, pp. 82-84.

<i>Industry and Occupation</i>	<i>Average Actual Earnings per Week for Male</i>	<i>Average Actual Earnings per Week for Female</i>
	<i>Employees</i>	<i>Employees</i>
Paper Box manufacturing	\$19.40	\$11.05
Women's Clothing manufacturing . . .	35.11	15.95
Confectionery manufacturing	18.45	10.08
Overall manufacturing	25.02	12.06
Cigar Industry	20.84	15.54
Men's Clothing Industry	24.79	14.75
Hosiery and Underwear	20.80	12.98
Silk manufacturing	22.79	15.29
Brick manufacturing	20.00	.....
Chemicals manufacturing	20.90	12.35
Glass manufacturing	22.66	19.38
Leather manufacturing	26.03	13.40
Paper and pulp manufacturing	26.47	13.44
Pottery manufacturing	26.60	13.37
Rubber manufacturing	27.04	14.95
Automobile manufacturing	25.87	16.98
Car manufacturing	26.79	.....
Electrical Apparatus manufacturing . .	25.53	15.30
Foundry manufacturing	26.28	12.66
Machine manufacturing	26.95	12.90
Machine Tool manufacturing	26.74	16.62
Typewriter manufacturing	26.77	14.67

The 1919 Industrial Survey made by the United States Bureau of Labor Statistics covered 2,365 establishments, 28 industries scattered through 43 states, 780 different occupations, including a total of 404,758 employees. These investigations⁵⁸ disclosed that of the 318,946 men workers 151,725, or 47.5 per cent, earned less than 50 cents an hour. As the average number of hours per day was found to have been 7.6, at least half of the male workers earned less than \$22.80 per week. The average weekly wage for all was \$25.58. In the case of the women workers, of the 85,812 persons investigated, 47,917 or 54.75 per cent earned less than 30 cents per hour. The average number of hours here was 7.5 per day, which means that more than half of the female workers earned less than \$13.50 per

week. The average weekly wage for all was \$13.54.

The 1919 minimum wage standards for women workers in the states that have established such were as follows: District of Columbia (mercantile trade) \$16.50; California \$13.50; Washington \$13.20; Massachusetts (candy occupations) \$12.50; and Kansas \$11.00. In 1918-19 the wage investigations of the Massachusetts Minimum Wage Commission showed that from 57 to 98 per cent of the women workers investigated in five industries in that state earned less than \$11.00 per week. In New York the minimum weekly budget set for a single working woman in 1919 was \$16.13. Studies of 500 working girls chosen at random by the New York State and City Consumers' Leagues early in 1920 showed that 443 or 88 per cent of the girls investigated received less than \$16.00 per week. While the cost of living in 1919 increased about 83 per cent, 29 per cent

⁵⁸ *Industrial Survey in Selected Industries in the United States in 1919, Bulletin No. 265, p. 37-38, May, 1920. United States Bureau of Labor Statistics.*

of the women investigated reported no wage increase during the same year.⁵⁹

In December, 1919, the Bureau of Labor Statistics published a complete study of wages and hours of labor in the coal mining industry as found in the early part of that year. This study included 551,646 workers throughout the United States. The actual earnings of these miners in the bituminous fields as studied during one-half month pay roll by states is given as follows⁶⁰:

Commission in 1920, and which were greatly disputed by the representatives of the miners, showed that the average wage of 68,416 miners examined in 1918 was \$1,422, but declined to \$1,-234.44 in 1919. The miners presented figures of much lower averages.

The Bureau of Labor Statistics also keeps records of the changes in union wage scales. The year 1913 is taken as the basis of the index and set at 100. Accordingly the rates of wages

AVERAGE ACTUAL EARNINGS IN BITUMINOUS MINES IN ONE-HALF MONTH PAY-ROLL PERIOD BY STATES

State	Hand Miners	Machine Miners	Loaders
Alabama.....	\$40.41	.....	\$45.88
Colorado.....	47.42	\$73.73	50.65
Illinois.....	47.72	61.02	51.03
Indiana.....	36.47	55.79	40.02
Iowa.....	43.37	52.55	34.17
Kansas.....	42.75	.....	.....
Kentucky.....	34.39	58.62	40.42
Maryland.....	50.57	.....	.....
Missouri.....	36.42	43.27	42.86
New Mexico.....	52.12	36.45	50.80
Ohio.....	63.56	86.86	58.40
Oklahoma.....	53.82	50.66	48.53
Pennsylvania.....	57.49	72.02	55.21
Tennessee.....	34.08	26.25	33.36
Utah.....	57.66	92.07	57.95
Virginia.....	.....	52.66	38.93
West Virginia.....	52.58	71.90	47.53
Wyoming.....	57.09	.....	45.85
Total.....	47.12	67.58	50.51

In the case of the anthracite miners, the average earnings made in one-half month pay-roll period in 1919 are given as follows: Inside occupations averaged \$65.17 while those engaged in outside occupations averaged \$55.37 per two weeks pay roll.⁶¹ The figures presented by the operators to the Coal

per full-time week are presented as follows⁶²:

1913.....	100
1914.....	102
1915.....	102
1916.....	106
1917.....	112
1918.....	130
1919.....	148
1920.....	189

⁵⁹ *Women's Wages Today*, Feb., 1920. Consumer's League of New York State and New York City.

⁶⁰ *Labor Review*, Dec., 1919, pp. 207-229.

⁶¹ *Labor Review*, Dec., 1919, pp. 207-229.

⁶² *Labor Reviews*, February, 1920, p. 117; March, 1921, p. 64.

Further compilations of increases in union rates of pay per hour from 1914 to 1919 in the building trades in about thirty cities in the United States were made by the Bureau of Applied Economics.⁶³ The increases experienced as given by the international unions concerned were as follows:

<i>Occupation</i>	<i>Per Cent of Increase from 1914 to 1919.</i>
Bricklayers.....	30.9
Carpenters.....	53.9
Cement workers and finishers.....	36.3
Inside wiremen.....	51.4
Painters.....	60.8
Plasterers.....	32.2
Plumbers.....	50.0
Sheet metal workers.....	56.2
Steam fitters.....	51.6
Structural iron workers.....	51.7

In the case of the dress and waist industry the increase in wage rates amounted to 52.8 per cent from 1916 to 1919,⁶⁴ while in the case of linotype operators the increase from 1914 to 1919 constituted only 24.2 per cent, and for compositors, both newspaper, book and job work, the increase amounted to approximately 32 and 33 per cent respectively.⁶⁵

The Interchurch World Movement Report on the steel strike concludes that:

The annual earnings of over one-third of all productive iron and steel workers were, and had been for years, below the level set by government experts as the minimum of subsistence standard for families of five.

The annual earnings of 72 per cent of all workers were, and had been for years, below the level set by government experts as the minimum of comfort level for families of five.

This second standard being the lowest which scientists are willing to term an

"American standard of living," it follows that nearly three-quarters of the steel workers could not earn enough for an American standard of living. The bulk of unskilled steel labor earned less than enough for the average family's minimum subsistence; the bulk of semi-skilled labor earned less than enough for the average family's minimum comfort.

In 1918, the unskilled worker's annual earnings were more than \$121 below the minimum of subsistence level and more than \$495 below the "American standard of living" for families.

In 1919, the unskilled worker's annual earnings were more than \$109 below the minimum of subsistence level and more than \$558 below the "American standard of living."⁶⁶

In January, 1920, Professor Ogborn presented to the Bituminous Coal Commission, a minimum budget necessary for a miner's family, at \$2,118.94 a year. About the same time the United States Bureau of Labor Statistics, at the request of the Bituminous Coal Commission, in a study of a number of mining towns in Pennsylvania, West Virginia, Ohio, Indiana, and Illinois found the budget varying from \$2,044.39 to \$2,162.65. According to the same bureau the index of wholesale prices for all commodities in the United States when taken at 100 for January,

⁶³ *Wages in Various Industries*, p. 13, 1919, Bureau of Applied Economics.

⁶⁴ *Ibid.*, p. 30.

⁶⁵ *Ibid.*, p. 47-48.

⁶⁶ *Report of the Steel Strike of 1919*. Commission of Inquiry Interchurch World Movement, pp. 12-13-14.

1913, had risen to 272 in May, 1920, an increase of almost 200 per cent.

On the basis of these budgets and increase in prices, Mr. W. Jett Lauck, a competent authority, declared in May, 1920, before the United States Railway Labor Board that "not a penny less than \$2,500 a year was the minimum necessary for a family of five to maintain itself, even in decent poverty."

The National Industrial Conference Board declared recently that the cost of living of American wage-earners has increased 104.5 per cent between July, 1914 and July, 1920. The United States Bureau of Labor Statistics states that its investigations in a number of industrial centers show that the prices of the essential items making up the family budget have increased from December, 1914 to June, 1920, as follows⁶⁷:

Baltimore.....	114.3
Boston.....	110.7
Buffalo.....	121.5
Chicago.....	114.6
Cleveland.....	116.8
Detroit.....	136.0
Houston.....	112.2
Jacksonville.....	116.5
Los Angeles.....	101.7
Mobile.....	107.0
New York City.....	119.2
Norfolk.....	122.2
Philadelphia.....	113.5
Portland, Maine.....	107.6
Portland, Oregon.....	100.4
San Francisco and Oakland.....	96.0
Savannah.....	109.4
Seattle.....	110.5
Average for all cities.....	112.7

Thus taking the various estimates into consideration, it would seem most conservative to state that during the first six months of 1920, at which time prices reached their peak, it required at least between \$1,800 and \$2,000 a year, or approximately between \$35 and \$40

a week the year round to support a family of five with the necessities of life.

In view of this it may be of value to examine a few more wage statistics collected during the year 1920.

In a recent report issued by the New York City Board of Estimate and Apportionment, the comparative rates of wages paid by New York City are given from January 1, 1916 to January 1, 1920. Of the 57 trades enumerated, only one—the painters—show an increase of 100 per cent on the last date. In 25 more trades the increase amounts to 50 per cent or over, while in 31 of the trades the increase amounts to less than 50 per cent.

The Massachusetts Commission on the necessities of life found that in June, 1920, the cost of living in Massachusetts when based on corresponding prices in 1913, had increased 99.7 per cent. At the same time a comparison of the hourly rates of wages in 213 trades in Boston, at the close of June, 1914, with those at the close of June in 1920, showed that the average hourly rates in these trades had increased only 83.5 per cent during the six-year period.⁶⁸ It must be noted, however, that in many of these trades there was found a reduction in the basic number of hours worked per week, with a consequent reduction in the weekly rates of wages. When these were taken into consideration, the Massachusetts Department of Labor and Industries found that the average weekly wages had actually increased only 72.7 per cent as against 99.7 per cent increase in the cost of living during the same period.

The October, 1920 *Review* published by the United States Bureau of Labor Statistics presents a detailed study of the union scales of hourly wage rates throughout the country. These cover

⁶⁷ *Labor Review*; September, 1920, pp. 75-80.

⁶⁸ *Massachusetts Industrial Review*, Vol. I, No. 2, p. 4, July, 1920.

many industries and their rates of wages paid are given for each year from 1913 to 1920. A comparison of the hourly wage rates paid in May, 1914 and May, 1920 in the nineteen cities for which the rise in the cost of living has been given in the preceding page is herewith presented⁶⁹:

road employes is presented. (1) As of December, 1917 (under private control); (2) January, 1920 (under the United States Railroad Administration); and (3) July, 1920 (under the last decision of the United States Labor Board). The number of employes and the actual wages earned are tabulated on page 188.

<i>Occupation</i>	<i>Per Cent Increase from May, 1914 to May, 1920</i>
Blacksmiths.....	102.2
Boiler makers.....	112.2
Bricklayers.....	69.0
Building laborers.....	136.2
Carpenters.....	94.5
Cement finishers.....	84.8
Compositors, book and job.....	87.6
Compositors, newspapers.....	57.0
Electrotypers, finishers.....	79.3
Electrotypers, molders.....	78.3
Granite cutters.....	92.0
Hod carriers.....	128.7
Inside wiremen.....	98.3
Linotype operators, book and job.....	63.9
Linotype operators, newspaper.....	54.0
Machinists.....	112.4
Molders, iron.....	130.6
Painters.....	106.6
Plasterers.....	70.2
Plasterer's laborers.....	106.2
Plumbers.....	70.5
Sheet-metal workers.....	95.5
Stone cutters.....	84.7
Structural, iron workers.....	79.0
Average of all Trades.....	99.7

In March, 1920 the respective earnings of anthracite miners, including both inside and outside occupations during a one-half month pay-roll, was \$68.56 and \$55.81.⁷⁰

In a recent report published by the United States Labor Board⁷¹ a comparison of the average daily and monthly earnings of all classes of rail-

⁶⁹ *Monthly Labor Review*, Oct., 1920, p. 79-92.

⁷⁰ *Labor Review*, Dec., 1919, p. 207-229.

⁷¹ Average daily and monthly Wage Rates of Railroad Employes on Class 1 carriers. *Wage Series Report 1*, August, 1920.

The average weekly wage of factory workers in New York State reported by the New York State Industrial Commission, amounted to \$24.41 per week in October, 1919, \$27.87 in April, and \$28.73 in September, 1920,—nearly \$10 per week less than was conservatively considered the minimum necessary for the maintenance of an American standard of living.

Taking the most conservative estimate given for 1919 as that of \$1,500, this means \$28.85 per week or practi-

AVERAGE WAGE RATES FOR RAILROAD EMPLOYEES

<i>Occupation</i>	<i>Number of Employees</i>	<i>Average Wage December, 1917</i>	<i>Average Wage January, 1920</i>	<i>Average Wage July, 1920</i>
Supervisory forces	12,634	\$148.57	\$230.21	\$259.03
Maintenance of way and unskilled labor forces .	585,625	54.92	84.08	103.53
Shop employes	455,776	89.87	128.64	154.78
Telegraphers, telephones and agents	77,646	67.57	115.87	135.66
Engine service employes	136,952	124.52	180.98	218.80
Train service employes .	189,905	108.66	160.07	199.52
Stationary department employes	8,000	55.59	97.00	122.40
Signal department em- ployes	15,000	84.15	130.27	155.77
Marine department em- ployes	834	127.65	166.01	194.46
Clerical and station forces	354,400	66.04	98.53	121.89
Grand total	1,836,772	\$77.93	\$115.82	\$141.28

cally \$5.00 a day every working day in the year as the minimum wage necessary to maintain John Doe, his wife and three little Does. *The Survey*⁷² gives the following analysis of the meaning of this wage.

Suppose John Doe pays \$3.50 weekly for rent—certainly not a high rate; at least \$13.00 will be required for food—an allowance adequate only with the most careful management on the part of Mrs. Doe. For clothing at least \$6.75 weekly will be needed; light and fuel with only the kitchen stove will cost at least \$1.50 weekly on an average throughout the year; carfares if Doe has to ride to work, will cost at least \$1.20 weekly; miscellaneous articles for the household \$1.15, a total of \$27.10. This leaves a balance of \$1.75 for church, newspapers, ice-cream cones, hair-cuts, etc., for five persons; and the list will probably include insurance as well, for most families like the Does will buy industrial insurance.

If everything goes on smoothly, and if Mrs. Doe is a careful planner, it may be possible for the Does to get on with this budget. The allowance for food and clothing is scant, however; the margin for recreation and sundries is painfully small, and there is no provision for accident or sick-

ness. But suppose a small accident occurs, or a sudden need arises,—the kitchen stove gives out and a new one is necessary; the winter snow comes and several pairs of shoes must be purchased in one week and Doe himself must have an overcoat! The temptation becomes overwhelming to turn to the ever-ready credit companies and mortgage the future for the relief of the present. It is fairly well understood that the credit companies offer goods which, if of good quality, are sold at high prices, and that trading with them is conducive to extravagant purchases; and yet it is hard to see how many families like the Does would manage an extra expenditure of \$25.00 or more were it not for some such expenditure. As a matter of fact, there are comparatively few of the families coming for the first time to the charities for assistance, who are not involved in some way with credit companies or are not struggling to meet weekly payments on debts.

Now suppose a real calamity befalls the Does; for example, little John falls ill, showing signs of tubercular infection. Any margin after such expenses as are noted above will not go far in securing the attendance of the private physician, although the family we are considering is one which should be independent; if they seek free medical service they make their first appeal

⁷² *The Survey*, March 27, 1920, pp. 801-802.

to charity—and then, too, expenses presently increase. Carfares for mother and Johnnie to the dispensary are forty cents a trip, admission to the clinic ten cents more. Suppose they have to go twice weekly, one dollar is gone. Medicines may easily cost another dollar. The doctor prescribes milk and eggs, oranges, green vegetables, warmer coverings, etc. As a result Mr. John must try to cut down somewhere, though cutting seems impossible, and father, mother and the well children all suffer that the invalid may have extra nourishment.

Of course, the natural increase of the family has the same results, for the extra cost of pregnancy and confinement and an additional member of the family, are seldom accompanied by an increase of wages. Perhaps the Does should realize they can't afford to have any more children—but somehow they don't realize it; and then there are many reasons why they are not deterred from adding to their little brood. Indeed, are there not certain prevailing notions abroad that it is a work of good citizenship and service to the state for normal people in good health to rear good-sized families? Moreover the statistician tells us that "The average number of children per family which must be born in order that the stock may maintain itself without increase or decrease, is close to four."

Those who are not working by the day are apt to overlook certain differences between their lot and that of the lower paid workman on piece work or a daily wage. If the salaried man falls ill or meets with an accident his income, as a rule, goes on to a greater or less extent, but with the wage-earner the tendency is otherwise; he is usually paid only when actually at work. In case of accident or occupational disease, workmen's compensation will, it is true, give him two-thirds of his pay; but he has to wait ten days before compensation begins and another week before the first payment comes, and many families haven't even that margin. Moreover, when full wages barely suffice, how long can the family subsist on two-thirds? Sometimes there is a benefit association which assures weekly payments for a time, but often there are no such resources. Relatives are not to be counted on, for their margin, if they have

any, is slender. Landlords are less lenient than formerly, and grocers are wary of extending credit which tends to become a thing of the past. Under stress, therefore, John Doe's family and others like them are forced, though perhaps much against their will, to the first step towards dependency.

It should be remembered that the John Does are an average, respectable family,—a healthy, industrious man without bad habits; a frugal, healthy woman; children in number no more than a couple having ordinarily felt that they should be able to rear; none of them with marked physical weakness. And yet actual experience shows that any one of the accidents to which they are liable, often throws such people, within a week or two, on charity. Moreover, it should be noted that their budget offers no opportunity for savings and that no provision for old age is feasible; such people face at all times the possibility, even the probability, of becoming a burden on the community when their working days are over. Such are the ordinary hazards in the life of a normal family of five living on daily wages of five dollars.

The wage investigations discussed in the preceding pages are significant. It is patent that despite the tremendous increase in wages experienced during the last six years, only few classes of wage-earners have succeeded in keeping pace with the increased cost of living. In the case of many workers, especially the skilled ones, the purchasing power of their increased wages for a full-time week in 1920 was considerably less than it was in the prewar days. And if the great mass of workers, as was seen in the early part of this article, did not receive what is authoritatively considered an American living wage before the present advance in prices had begun, their standards at the present time are necessarily lower.

As this article is in preparation, the newspapers are filled with announcements of wage reductions from all parts of the country, ranging from 20 to over 40 per cent. No definite estimate of

the cost of living at this time (December, 1920) is available.⁷³ While the Bureau of Labor Statistics reports that the index of wholesale prices in the United States, which, when taken at 100 in 1913, reached 272 in May, 1920, its high water mark, declined to 242 in September, 1920, the latest date for which figures are available, it also states that from September, 1919 to September, 1920 only farm products and clothing witnessed decreases of seven and nine per cent respectively. "In all other groups," declares the bureau, "there was an increase between these two dates,—food advancing approximately $5\frac{3}{4}$ per cent, miscellaneous commodities 10 per cent, metals 20 per cent, chemicals and drugs 28 per cent, building materials 40 per cent, house-furnishing-goods 42 per cent, and fuel 57 per cent in average price. All commodities, considered in the aggregate, increased 10 per cent."⁷⁴

⁷³ The most recent figures as to what constitutes a minimum "health and decency budget" for a family of five have just been made public by the Labor Bureau, Inc., New York City. As a result of cost of living surveys conducted in 1921 in New York City and Philadelphia, the above bureau estimates the annual minimum standard necessary for a family of five as \$2,233.99 in New York City, and \$2,338.20 in Philadelphia.

The bureau's estimate is based on the "quantity budget," used by the United States Bureau of Labor Statistics. They estimate that \$698 a year is needed for food, \$398 for clothing, \$443

The significance of the above disclosures needs no further comment. During the last six years the workers in the United States were in as favorable a position as they are not likely, from present indications, to enjoy in many years. The war years witnessed a period of the most intense industrial activity. Great numbers of workers were withdrawn into the military service and immigration was practically suspended. Everywhere there were more jobs than men to fill them. In spite of these favorable conditions, the above statistics seem to indicate that the lot of the wage-earners witnessed little material improvement regarding the relation between the cost of living and wages. The facts available seem to bear out the contention that wages are last to follow the rise in prices and are first to come down when the slump begins.

for rent, \$83 for light and heat, \$59 for household equipment and \$650 for miscellaneous expenses.

"The family is allowed no expenditures for books and magazines," says the bureau's statement, "only one daily paper is included. The doctor's bill cannot exceed \$80 a year for the whole family, and the boy of 12 can get but eight hair-cuts a year. The husband is allowed one-half and the wife one-third of an overcoat each year. The only amusements permitted are an occasional cheap movie show. No allowance is made for a trip or vacation outside the city."

⁷⁴ *Labor Review*, Nov., 1920, p. 49.